DOCUMENT RESUME

ED 164 091 PS 010 252

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TITLE Medical Problems. Child Health and Safety Series (Module IV).
INSTITUTION Southwest Educational Development Lab., Austin, Tex.
SPONS AGENCY Texas State Dept. of Human Resources, Austin.
PUB DATE 77
NOTE 50p.; For related documents, see PS 010 241, PS 010 246, PS 010 248, and PS 010 253-56 ; Photographs will not reproduce clearly

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Allergy; Anemia; Child Care Centers; *Child Care Workers; Children; Communicable Diseases; Diabetes; *Diseases; Epilepsy; Family Day Care; First Aid; *Health Education; *Health Guides; *Instructional Materials; Lead Poisoning; Postsecondary Education
IDENTIFIERS *Medical Problems

ABSTRACT

This manual for child care personnel in day care homes and centers provides guidelines and information on the detection, treatment, and control of medical problems of children. Introductory materials focus on signs of illness which carepersons can recognize. Section II concentrates on insect, animal and human bites. Section III discusses skin conditions such as heat rash, diaper rash, body ringworm, scabies, head lice, eczema, impetigo, and poison ivy, oak and sumac. Section IV describes total body diseases with skin reactions: scarlet fever, strep throat, chicken pox, roseola, measles, German measles (rubella). Section V deals with infections of the mouth such as cold sores and thrush. Section VI provides information on upper respiratory diseases. The common cold, problems with tonsils and adenoids, and earache are discussed. Section VII examines abdominal, intestinal and urinary tract problems: umbilical hernia, appendicitis, pinworms, hepatitis and urinary tract infection. Section VIII identifies the nutritional problems of iron deficiency anemia and lead poisoning. Section IX discusses chronic problems such as allergies, diabetes, epilepsy and sickle cell anemia. Section X presents a list of readings. (A slide/sound presentation and pamphlets were produced in conjunction with this manual.) (RH)

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MEDICAL PROBLEMS

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CHILD HEALTH AND SAFETY SERIES

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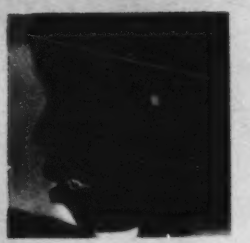
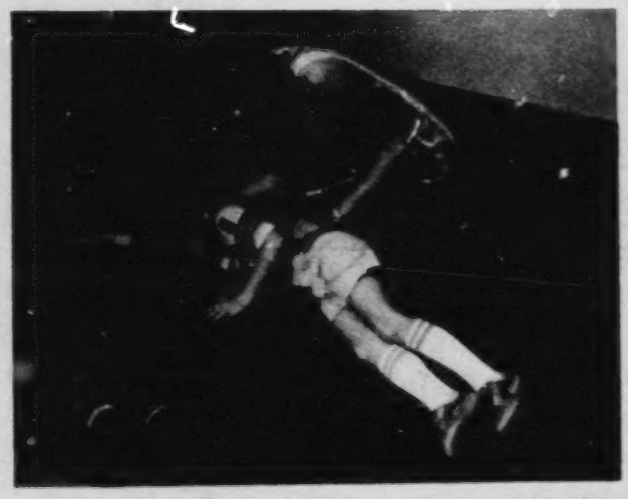
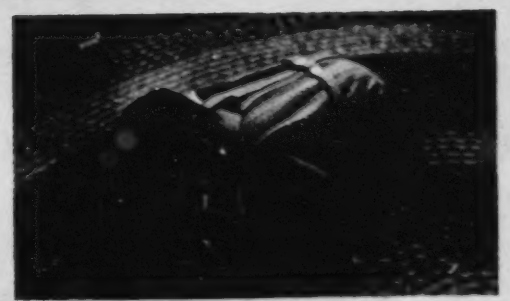
CHILD HEALTH AND SAFETY SERIES

Module I	SAFETY PRECAUTIONS (includes manual, pamphlets, and one slide/sound presentation)
Module II	HEALTH PRECAUTIONS (includes manual, pamphlets, and one slide/sound presentation)
Module III	WHEN A CHILD IS SICK OR HURT (includes manual, pamphlets, and one slide/sound presentation)
Module IV	MEDICAL PROBLEMS (includes manual, pamphlets, and one slide/sound presentation)
Module V	THE SERIOUSLY ILL CHILD (includes manual, pamphlets, and one slide/sound presentation)
Module VI	EMERGENCY CHILD AID (includes manual, pamphlets, and one videotape or one 16 mm film)
Module VII	THE GROWING CHILD...BIRTH THROUGH FIVE (includes manual, pamphlets, and three slide/sound presentations)
Module VIII	THE GROWING CHILD...SIX THROUGH FIFTEEN (includes manual, pamphlets, and three slide/sound presentations)

MEDICAL PROBLEMS







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MEDICAL PROBLEMS

I. SIGNS OF ILLNESS

One of the most important jobs of those who work with children is to recognize signs of illness and to help a child who is sick. Signs of illness include sudden changes of behavior and/or appearance.

A. CHANGE OF BEHAVIOR

Listed below are a number of signs of illness which can be recognized by the observant careperson. You should check for them every day. If these symptoms start suddenly and continue beyond 24 hours, they should be reported to the parents or a medical advisor:

1. Unusual numbers of trips to the toilet
2. Irritability
3. Listlessness
4. Unusual aggressiveness
5. Unusual loudness of voice
6. Frequent stumbling or falling - particularly if the child always falls to one side.
7. Loss of appetite

B. OTHER CHANGES

Listed below are other symptoms that indicate illnesses which will most likely require treatment:

1. Fever
2. Vomiting
3. Rashes
4. Diarrhea
5. Constant sneezing
6. Constant coughing
7. Earache
8. Sore Throat

II BITES

Children are often the victims of insect and animal bites. Attention to bites is most important because they can lead to other illnesses.

A. MOSQUITO AND FLEA BITES

All precautions should be taken to get rid of mosquitoes and fleas. Standing water is a good breeding ground for mosquitoes, and lawns harbor both fleas and mosquitoes. Animals, of course, are a source of fleas. If you are in a heavily infested mosquito area, you can spray the children with a mosquito repellent before they go out to play. In these areas it is also best to keep the children indoors in the evening.

1. Treatment

a. Itching caused by insect bites can be reduced with a soothing lotion or baking soda paste. Bathing the child in a lukewarm baking soda solution is also helpful.

b. Trimming the child's fingernails will help to avoid further irritation of the bite area which could lead to more serious skin problems such as impetigo.

2. Caution

If a child comes to school with a lot of flea bites, they may look very much like chicken pox. Flea bites usually appear on the extremities and chicken pox start on the chest and face.

B. HORNET, BEE, WASP AND ANT BITES/STINGS

1. Emergencies

a. Any child who has a history of violent allergic reaction to insect bites should be rushed to the hospital immediately - even if the child is showing no distress signs.

b. Watch any child who has been bitten for signs of allergic reactions such as puffiness of eyes and face, and/or rashes and welts. These allergic symptoms will appear in areas other than at the site of the sting. If breathing difficulty develops, this is an emergency, and the child should be taken to the hospital.

c. Bites in the head or neck area are particularly dangerous, and the child should be watched closely for swelling or breathing difficulties.

2. Non-emergency Treatement

a. If you can see the stinger, scratch it out with something that is not sharp.

b. Soothe the area with cold water, ice, or baking soda paste. Cool baths with baking soda are helpful. Heat will aggravate the itching.

c. Permit the child to resume activities when he or she feels up to it.

d. Continue to watch for allergic reactions.

e. Alert the parents about the bite when they pick up their child, if any reactions develop.

C. ANIMAL BITES AND HUMAN BITES

All bites should be washed thoroughly with soap and water. Anytime the skin is broken, the child should be seen by a physician. Human bites are dirtier than dog bites and the possibility of infection is higher. Dog bites can cause rabies. Because of the possibility of rabies, the dog must be identified, and the owner contacted. If the dog is not identified, the child will have to have rabies treatments. Check with your local public health department about animal and human bites. They may recommend giving the child an antibiotic such as penicillin. They may also suggest a tetanus injection if the child's tetanus immunization is not up-to-date.

RASH

III SKIN CONDITIONS

This section deals with the common childhood diseases and conditions which affect the skin.

A. HEAT RASH

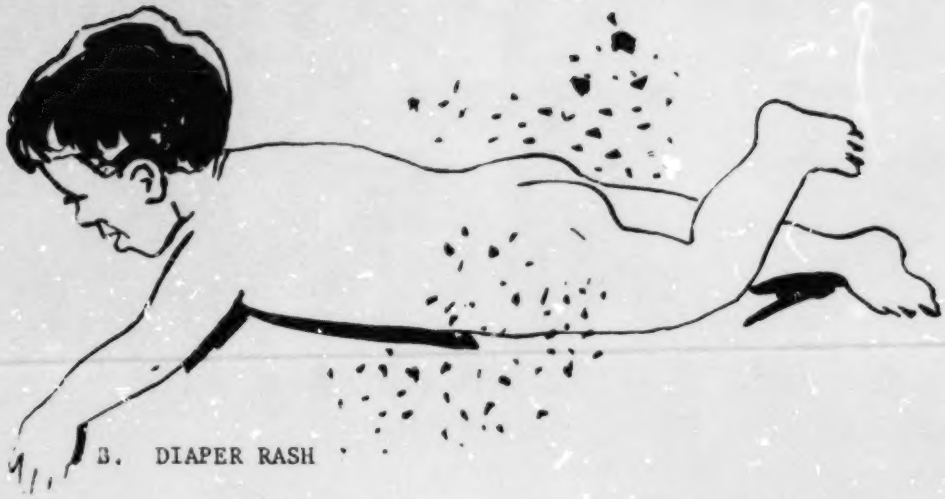
Heat rash is quite common and appears as red raised spots on the skin. It is often caused by sweating and wearing too many clothes in hot weather.

1. Treatment

a. Wash the rash with a clean damp cloth. Avoid using soap because it can make the rash worse.
b. Powder the affected skin with cornstarch.
c. Dress the child in cotton rather than synthetic clothing.
d. If the rash covers a large portion of a very young child's body, keep him or her undressed and apply cornstarch to the rash.
e. Keep the child cool in an air-conditioned area if possible.

2. Caution

Heat rash can be confused with other rashes. When in doubt, consult a nurse or physician.



B. DIAPER RASH

Diaper rash is a common skin irritation and can be made worse if the child wears rubber or plastic pants.

1. Treatment

a. Change diapers frequently or leave them off altogether.
b. Wash the genital area with a mild, non-perfumed, non-allergenic soap and rinse with clear water.
c. Dry and powder the area with cornstarch.
d. Rinse and put soiled, non-disposable diapers in a solution such as chlorine bleach and water or borax and water to prevent bacterial growth.
e. Wash diapers in very hot water and rinse until they are completely free of detergent.

2. Caution
A nurse or doctor should be consulted if the rash becomes infected.

C. BODY RINGWORM

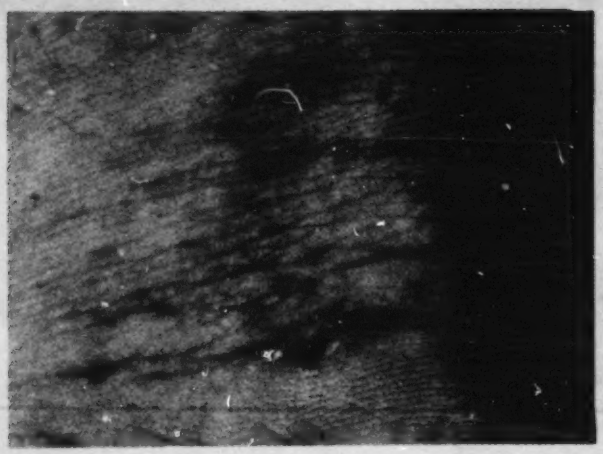
Ringworm is not caused by worms, but by a fungus. Body ringworm is an infection of the non-hairy skin and does not spread to the scalp or nails. It is usually acquired by contact with infected persons or possibly from sick animals. Ringworm of the scalp also causing the infected person's hair to break off close to the scalp is <u>not</u> the same as body ringworm, however.

1. Symptoms

Ringworm starts as a rounded, raised, red patch which spreads outward on the skin giving a red ring appearance.

2. Isolation and Quarantine

Ringworm is a common infection. Check your public health department for local isolation and quarantine policies.



D. SCABIES

Scabies is caused by the barely visible itch mite. It is annoying because of the intense itching and may become serious if scratching causes a secondary infection of the skin.

1. Symptoms

The itch mite burrows along and into the upper part of the skin, deposits eggs and produces a small canal as it goes. As the eggs hatch, the canal loses its roof and what remains appears to be a dark, wavy silk thread most easily seen between the fingers. Itching is more severe at night.

2. Contagion

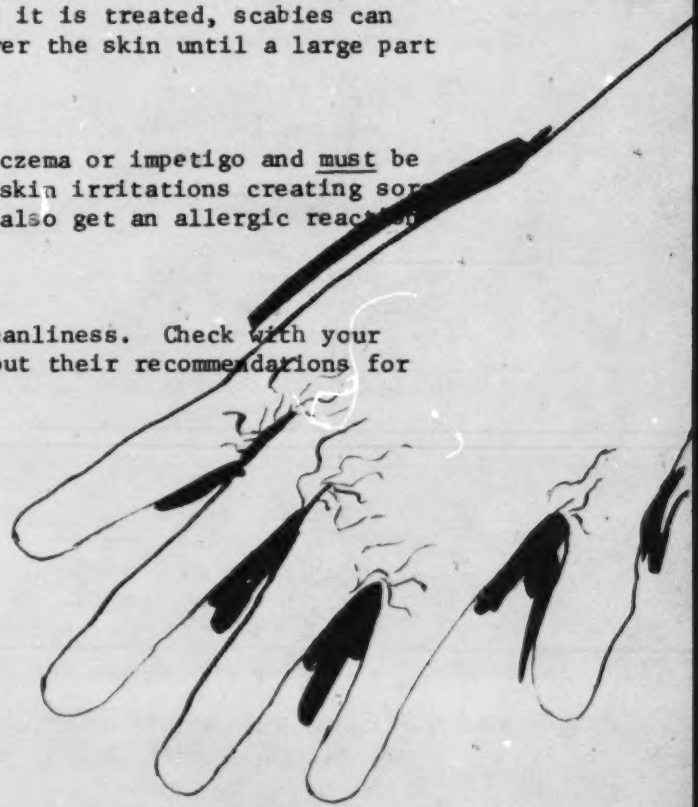
Children get scabies from other children who are infested, and from clothes or bed linen. Unless it is treated, scabies can last for a long time--spreading over the skin until a large part of the body is infected.

3. Complications

A bad case of scabies looks like eczema or impetigo and must be treated by a doctor. As with all skin irritations creating sor[illegible] impetigo can follow. A child can also get an allergic reac[illegible] from scabies.

4. Prevention

Prevention of scabies requires cleanliness. Check with your local public health department about their recommendations for the prevention of scabies.



E. HEAD LICE

Head lice and body lice are not the same. A person having one kind of lice does not necessarily have the other kind. The head lice which feed on humans live only on the head and feed by sucking blood from the head. In getting this food, they inject a toxic substance into the skin which causes intense itching. Lice lay their eggs on the hair shaft. The eggs are called nits.

1. Symptoms

Since head lice cause considerable scalp irritation, persistent head scratching and red marks at the hairline are clues to infestation. If you look closely, the nits can be seen attached to the hair shaft behind the ears. The nits cannot be shaken off as dandruff can. When checking children for nits, be careful to wash your hands after inspecting each child.

2. Contagion

Unless the condition is corrected, lice can be spread to other children by:

a. Placing blankets, mats, pillows, etc., together.
b. Touching one child's hair or scalp and then another child's hair.

Treatment

Check with your local public health department. They may recommend procedures such as checking or treating other members of the family, or other children in the center. The health department may suggest a spray for blankets, pillows, mats or cots. Washing sheets, washcloths, towels, and all clothing in very hot water is necessary.

4. Complications

5. Prevention

Keeping children's hair short is helpful. In addition, check with your local public health department regarding their prevention recommendations. It should also be noted that lice can infect people from all socio-economic and ethnic groups.

F. ECZEMA

Eczema is an allergy. A child can suffer from eczema, asthma, hay fever and other allergies at the same time. Eczema can be caused by a reaction to a variety of things including foods, wools, soap, and detergents.

1. Symptoms

Eczema usually starts as a rash in the bends of the body, especially in the bends of the elbows and knees. It is an irritation which causes the child to scratch.

2. Treatment

a. Clothes should be light and cool in hot weather because excessive warmth will make the rash worse.
b. Care should be taken to keep the child's hands clean because his or her scratching causes the areas to become infected.

3. Complications/Contagion

Eczema is not infectious unless a secondary infection like impetigo develops.

C. POISON IVY, OAK, SUMAC

Teach the children to recognize poisonous plants so that they can stay away from them. You can begin by teaching them the old but useful adage, "Leaves of three, let them be." If one of your children does come in contact with leaves of three, he or she will probably develop a skin rash that will begin as small, itchy bumps that eventually turn to blisters.

1. After contact with poison ivy, oak or sumac:

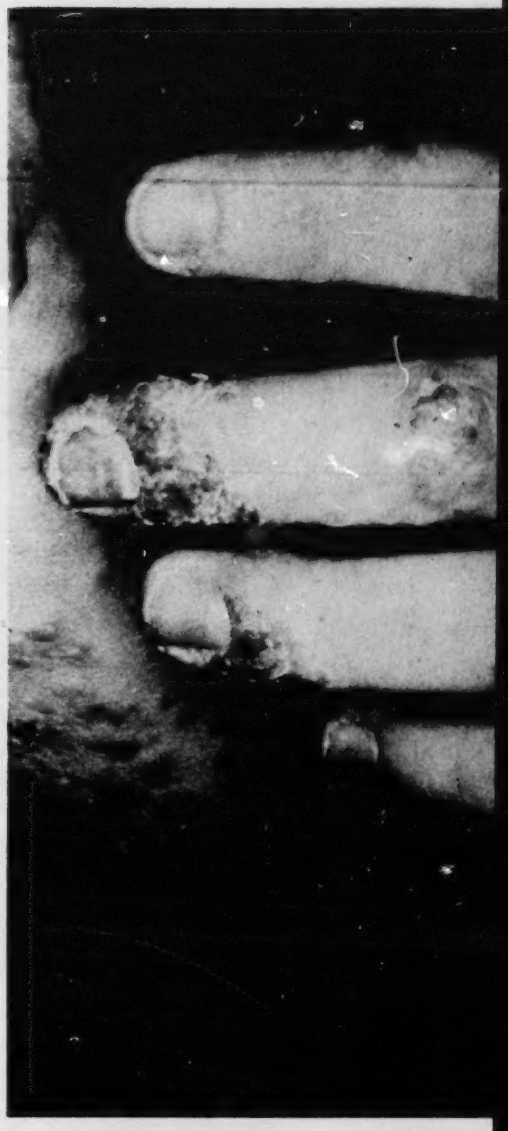
a. Remove clothes that have come in contact with the plant and wash them in a strong soap. Be careful yourself in handling the clothes.
b. Immediately wash the child's skin with strong soap.
c. Keep the child cool to lessen sweating.
d. Do not let the child scratch and spread the rash.
e. Watch for signs of allergic reaction.
f. Seek medical help if the rash covers a large portion of the body, or becomes more severe.

2. If children come to school with diagnosed cases of poison ivy, oak or sumac:

a. Send them home if they are more than mildly uncomfortable.
b. Keep the rash covered so that it will not spread to other children who are sensitive to these plants.
c. Keep their hands clean and trim their fingernails to reduce spreading and infection.

H. IMPETIGO

Impetigo does not start spontaneously. It is a complication that arises from other sores. It is an infection of the skin caused by germs similar to those which cause boils. If a child has a yellowish crusted sore anywhere on his or her body which remains and spreads, it may be impetigo, and it must be treated by a physician.



1. Symptoms

The germs produce little blisters which later break and ooze a yellowish fluid. These sores then become crusted. When the crusts are lifted, the yellowish material under them is pus. When a crust becomes dark and dry, it is usually a sign that the impetigo is healing at that particular spot.

2. Treatment

Impetigo must be treated by a physician.

3. Contagion

Impetigo is contagious as long as there are any unhealed sores on any exposed area of the body. Impetigo germs are spread by direct contact with a child who has a lesion (cut, scrape, or sore). Children may get it through contact with infected playmates or by using towels, washcloths, and hairbrushes which have been used by a child with impetigo. They also get it by scratching and infecting insect bites or other sores.

4. Incubation Period

Impetigo usually appears within five days, but sometimes within only two days of infection.

5. Complications

Kidney or heart problems may develop from impetigo.

6. Prevention

The best prevention for impetigo is cleanliness. Teach your children to keep their hands and fingernails clean, and not to use other people's towels and washcloths. Skin sores, rashes or any condition which causes the child to scratch should be treated promptly. Anytime a child in your classroom has an open impetigo sore it should be bandaged to protect the other children. The child should not be bandaged when he or she is at home, because the sores need to dry out.

7. Isolation and Quarantine

Check with your public health department for local regulations.

IV TOTAL BODY DISEASES WITH SKIN REACTION

A. SCARLET FEVER/STREP THROAT

The germs causing scarlet fever and strep throat are both from the same germ family. A child with scarlet fever will develop a rash. A child with strep throat will not. The diseases vary in their severity and frequency. They are most common during the early school years.

1. Symptoms

Sudden vomiting as well as headache, sore throat, rapid breathing, and a rise in temperature will probably occur. The scarlet fever rash starts 24-27 hours later and lasts a few hours to one week. After a while, the skin of a child who has scarlet fever will begin to peel. Scarlet fever peeling can last for several weeks, but the peelings are not contagious.

2. Treatment

Because of the seriousness of the complications from these diseases, the child should be treated by a physician.

3. Contagion

The germs usually enter the mouth and settle in the nose and on the tonsils and throat where they cause inflammation. Scarlet fever and strep throat are almost always spread by direct contact between the infected person and the people they come in contact with, but the germ can be carried on objects that he or she has touched. The child is infectious until all symptoms are gone--usually 3-10 days, or until he or she has been on antibiodics for 24-48 hours.

4. Incubation Period

The illness usually starts about two to five days after exposure.

5. Complications

Kidney problems are a complication of scarlet fever. Rheumatic fever is a complication of strep throat.

6. Prevention

It might be advisable for the child's family and the rest of the class to have throat cultures taken. Check with your public health department regarding local recommendations.

7. Isolation and Quarantine

Consult the public health department for local quarantine policies.

B. CHICKEN POX

Chicken pox is caused by a virus and is considered one of the mildest of all the infectious diseases that attack children. Usually a person who has had the disease once does not develop it again. During the first seven days, chicken pox is extremely infectious.

1. The child may be mildly ill for a day or so. Spots then develop on the body, face and scalp, and later spread to the limbs. The rash is slightly itchy. Once the rash appears, body temperature rises (100-102 degrees F). The temperature drops after a day or two. Spots rapidly become blisters. The blisters do not erupt all at the same time, but arrive in crops over a period of days. Ordinarily, the blisters will last a few days, dry up, and form a crust.

2. Contagion

   The child is infectious for as long as five days before the eruption of blisters and until all the blisters become scabbed. This usually occurs not more than six days after the first crop of blisters.

3. Incubation Period

   The incubation period can last from two to three weeks, but more often it is 13 to 17 days.

4. Treatment

   Itching can be reduced by bathing the child in a lukewarm baking soda solution.

5. Complications

   Scratching the spots can cause infection which will result in scarring.

6. Prevention

   There is no known protection against chicken pox.

7. Isolation and Quarantine

   The child should remain at home until all blisters are scabbed over.

C. ROSEOLA, MEASLES, RUBELLA

1. Roseola

Roseola rash resembles German measles and scarlet fever rashes. Immunity to red measles or German measles (Rubella) does not protect a child against roseola. Roseola is quite common in children between the ages of 6 months and 2 years.

a. Symptoms

. High fever which lasts three or four days.
. A rash which develops after the temperature returns to normal. The rash usually consists of flat pink spots covering the whole body.
. A nervous condition may develop in the child.
. Lymph glands enlargement may occur.

b. Treatment

. There is no specific treatment. Temperature can be reduced with cool baths and aspirin.

c. Isolation and Quarantine

Isolate a child with roseola.

2. GERMAN MEASLES (RUBELLA)

It is well known that Rubella in expectant mothers can affect the development of the fetus. Rubella vaccine is available, and all children should be immunized against Rubella at age 15 months so that they don't spread it or get it later in life.

a. Symptoms

. Stiff neck from swollen lymph glands
. Low-grade fever
. Flat pink spots, which begin on the face and spread over the whole body. The rash looks like that of measles or roseola, but occasionally it resembles the rash of scarlet fever.

b. Treatment

There is no special treatment for Rubella.

c. Isolation and Quarantine

Check with your public health department for local regulations.

3. MEASLES

Measles used to be a common childhood illness, but it has now become greatly reduced by vaccine inoculations which are given to children at an early age. Complications from a case of measles can be quite serious, and all children should be immunized at the recommended age unless prohibited by unusual circumstances.

a. Symptoms

Measles begin like a common cold and is accompanied by some or all of the following symptoms:

. Watery eyes
. A hard, dry cough
. A fever which usually becomes higher each day
. A rash which starts at the end of the third or beginning of the fourth day behind the ears or at the hairline, and spreads downward, covering the e tire body.

b. Treatment

The child must be treated by a physician.

c. Complications

. Pneumonia and bronchitis
. Middle ear infection
. Sinus infection
. Lymph glands inflammations
. Encephalitis

d. Isolation and Quarantine

Consult your public health department for local regulations.

V INFECTIONS OF THE MOUTH

A. COLD SORES

Cold sores are caused by a virus and are usually seen around the lips. They are not usually found in the mouth. Some people seem to be particularly susceptible to them.

1. Symptoms

a. Small blisters appear around the lips, and uncomfortable sores may develop on the child's tongue. These may make it difficult for the child to eat or drink.

b. A mild fever, lasting for a day or two, may or may not occur.

c. A severe form of this disease is accompanied by fever ranging from 101 to 105 degrees. It may last for four to six days causing the child a great deal of discomfort because of mouth sores.

d. Occasionally, lymph glands below the chin and jaws become tender and enlarged.

2. Treatment

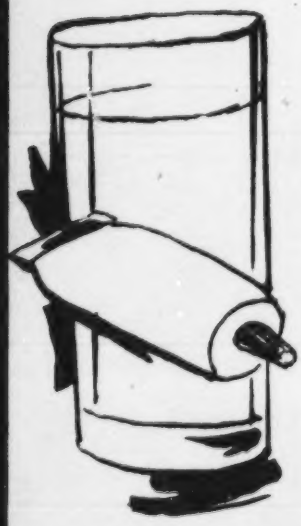
a. Good mouth hygiene which includes rinsing with warm water, or a baking soda solution.

b. Antibiotic ointments help prevent impetigo which often follow cold sores. Ointments, however, do nothing for the cold sores themselves.

c. Avoidance of salty foods which will hurt the mouth.

d. Always use individual washcloths.

e. It is especially important to give plenty of liquids because cold sores usually cause loss of appetite in the child.



B. THRUSH

Thrush is a fungus infection of the mouth, especially common in infants during the first few weeks of life. It may be started by contaminated nipples, pacifiers, or the fingers of attendants.

1. Symptoms

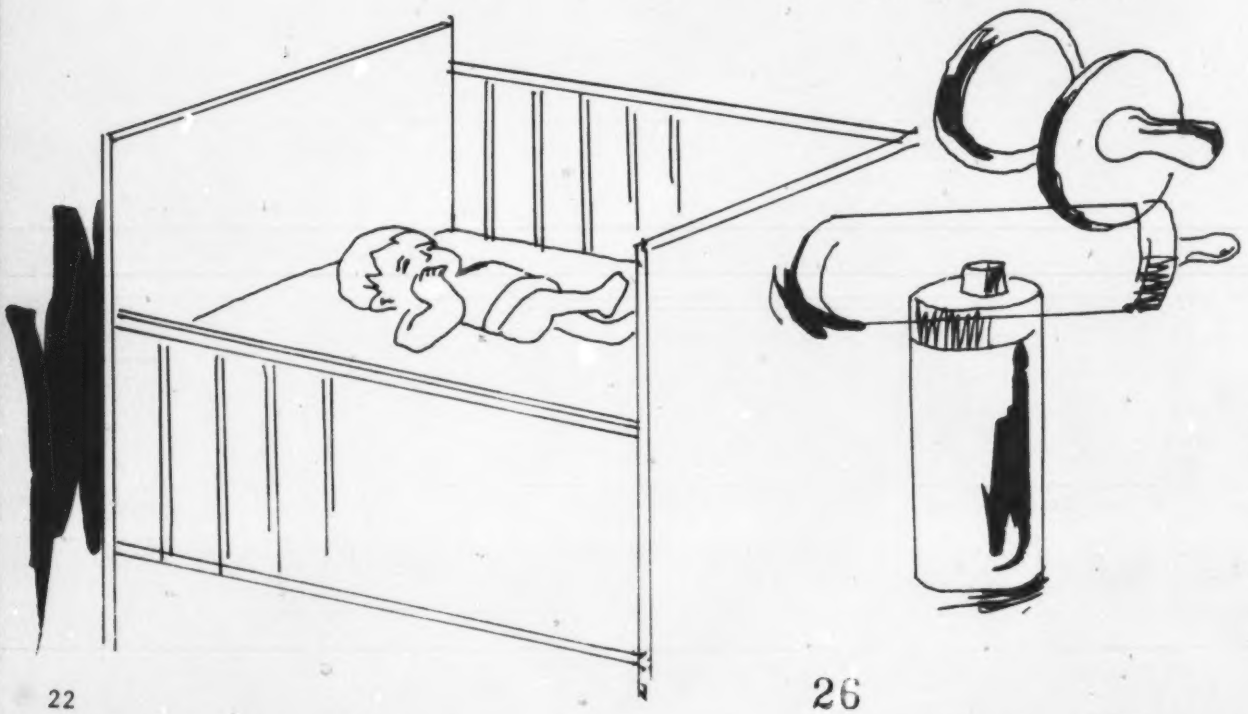
A baby with thrush has small white patches on the tongue, the sides of the mouth and on the gums that look like curds of milk and can't be wiped off. When thrust is limited to the mouth, it is annoying but not serious. Once in awhile, it extends into the throat and even into the larynx and can become a serious problem. In some cases, a sore mouth may keep the child from eating.

2. Treatment

The doctor will probably treat thrush by applying medication to the parts involved. This usually clears up the disease in a few days.

3. Prevention

Thrush can be prevented by good hygiene - being sure everything that goes into a baby's mouth is clean.



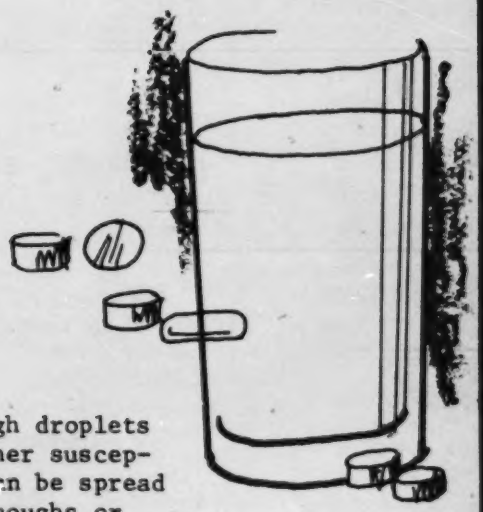
VI UPPER RESPIRATORY DISEASES

Upper respiratory diseases are those which involve the nose, throat, larynx, tonsils, adenoids, sinuses, and windpipe. Most of the common respiratory diseases are caused by viruses, but complications such as tonsilitis, swollen glands in the neck, middle ear infection, bronchitis, pneumonia and sinus infection are frequently caused by bacteria. In other words, virus infection seems to make the inflamed tissue fertile ground for the invasion of bacteria which may then produce another infection at or near the original place of infection.

A. THE COMMON COLD

1. Symptoms

Symptoms of the common cold include sneezing, tearing of the eyes, a running nose, a low-grade fever, and a general let-down feeling. The child may also develop a sore or scratchy throat and a cough. The running nose and the cough are apt to be most annoying when the child is lying down and the mucus from the nose and sinuses runs into the throat causing irritation. At different ages, cold symptoms vary. Infants and young children usually develop more fevers with their colds than older children or adults. After the cold improves and the fever disappears, the infant or child may go on having a runny nose and cough for another week or two. A runny nose for 10 days or more may indicate an allergy in the child. If you suspect an allergy, tell the child's parents.



2. Contagion

Colds are highly contagious. They are spread through droplets from the nose and throat of an infected child to other susceptable children who are close to him or her. They can be spread by sharing drinking cups and towels. When a child coughs or sneezes without covering his or her nose and mouth, he or she can spread an infection to anyone within a radius of 6 to 12 feet.

3. Incubation Period

The incubation period may be very short (several hours) or as much as two or three days.

4. Treatment

Children with fevers should stay in bed.

5. Complications

If the fever caused by a cold lasts more than a few days, the temperature rises after the first few days, or the cough becomes more severe or more frequent, a complication probably has set in. These complications can include ear infections, sinus infections, bronchitis or pneumonia.

6. Prevention

There is no special vaccine or serum for the prevention of colds. Good hygiene, staying away from people who have colds, keeping physically fit by getting enough rest and foods rich in necessary vitamins are helpful aids in warding off colds.

7. Isolation and Quarantine

A child who has a cold should be isolated so that he or she will not infect others.

B. TONSILS AND ADENOIDS

Nearly every child suffers from a sore throat from time to time and with it, an inflammation of the tonsils. It should be pointed out that tonsils are not always the source of sore throats, as many people believe. In fact, the tonsils help destroy germs and may prevent the child from getting a more serious infection. Tonsil enlargement, even to the point of touching, is not unusual.

1. Acute inflammation of the tonsils

a. Symptoms

- Unusual thirst and loss of appetite
- High fever
- Vomiting
- Headache
- Earache
- Sore throat

b. Treatment

Child should be seen by a physician if symptoms last more than 24 hours.

2. Reasons for removal of tonsils or adenoids

a. Tonsils

If the child has frequent and severe attacks of tonsillitis, a physician may advise that they be removed. It is only when tonsils become chronically infected or diseased that they should be removed.

b. Adenoids

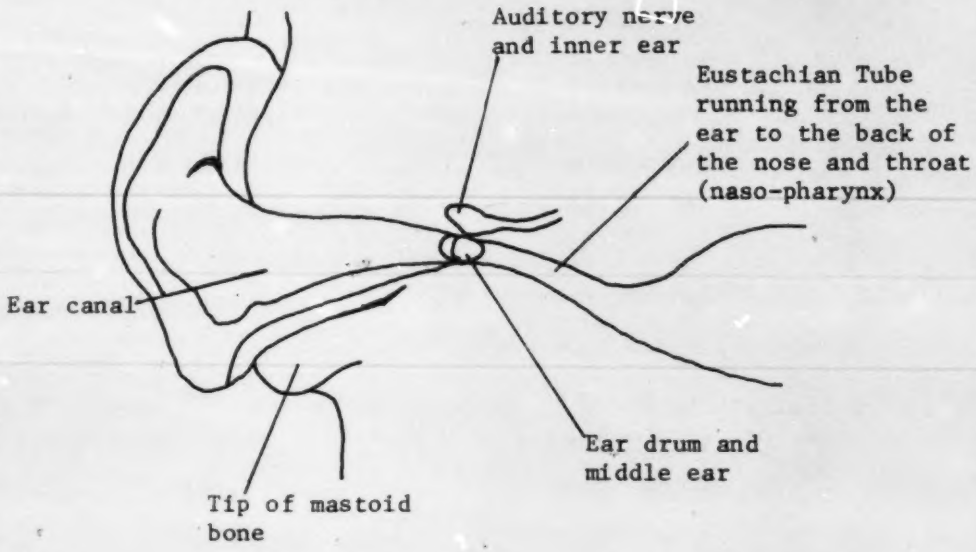
The adenoids are behind the nose in the back of the throat and are not visible to the layperson. Removal of the adenoids may be recommended when the inflamed adenoids are creating a hearing loss.

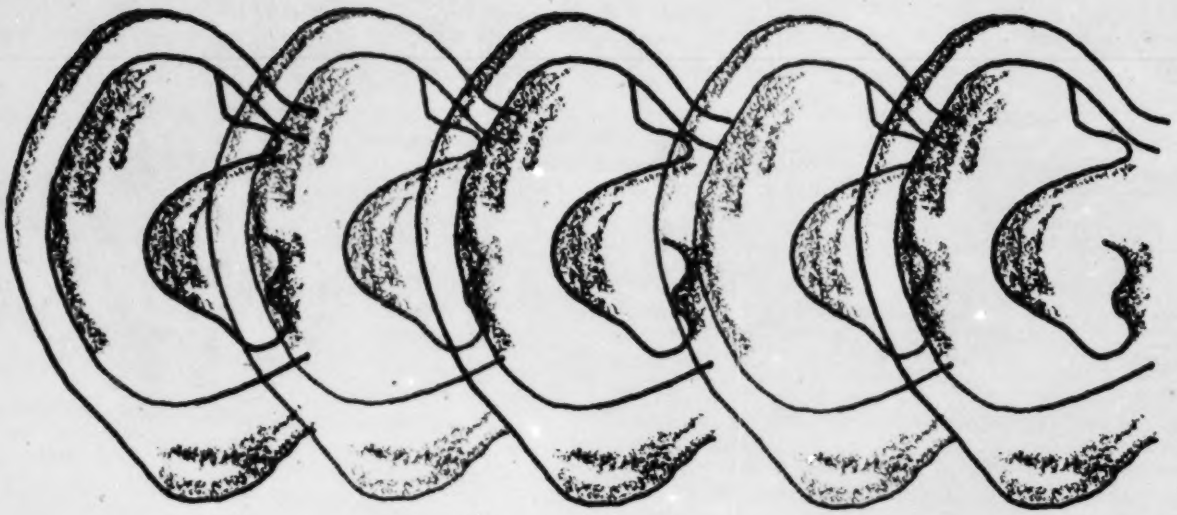
C. EARACHE
(Middle Ear Infection)

The ear consists of three parts: the auricle or external ear (the part you can see and the canal that leads to the eardrum); the middle ear, the space which contains the little bones that conduct sound waves to the inner ear, and is covered on the outside by the tympanic membrane or eardrum; and the inner ear which contains the nerves of hearing and the mechanisms which control balance.

Almost every child has an earache at one time or another during the early years. Some children have ear infections several times a year. The middle ear, the area of the ear between the part that you can see and the deep inner ear, is usually the site of ear infections in children. You cannot see this infection so you must watch for symptoms. Any child with an earache must be treated by a physician. Serious problems such as permanent hearing loss or brain infection can arise if the infection moves into the inner ear. Untreated ear infections may also result in a ruptured eardrum which could cause a permanent hearing loss.

A diagram of the ear showing the ear canal and the middle and inner ear.


Auditory nerve and inner ear
Eustachian Tube running from the ear to the back of the nose and throat (naso-pharynx)
Ear canal
Ear drum and middle ear
Tip of mastoid bone



Ear infections are frequently complications of colds. They may also result from allergies or from swimming and diving. In addition, babies who drink milk in a lying position often get ear infections.

1. Symptoms

   . Middle ear infection usually starts with severe pain in the ear and it is accompanied by a fever. The child often cries inconsolably.

   . The pain may be excruciating and may continue for a variable period of up to several days.

   . If no treatment is given, the pain may continue until the infection quiets down or the eardrum breaks.

   . The ear infection may be accompanied by only a slight fever or by one as high as 106 degrees. It is not unusual for infants to develop extraordinarily high fevers with a mild ear infection.

   . The child may refuse to eat.

   . The child may pull at or rub the ear that hurts or turn his or her head from side to side.

   . Vomiting and diarrhea may develop.

   . A baby who is too young to speak indicates pain by crying a great deal, refusing a bottle or food, and acting restless.

2. TREATMENT

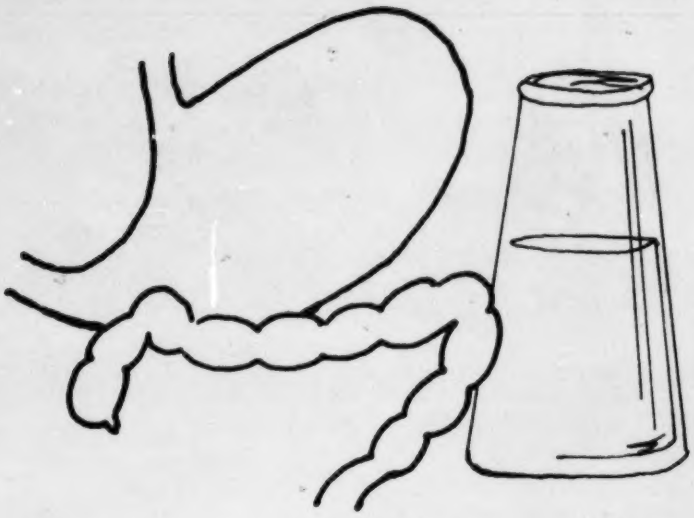
Ear infections can be treated with antibiotics. An ear infection is a closed abscess and it will rupture if not treated. A ruptured ear drum can cause permanent hearing loss. It is very important to follow the treatment for the length of time advised by the doctor. The most serious mistake a caregiver can make is to stop medication when the child appears well. It usually takes 2 weeks or more after the child appears normal for an infected ear to heal. In fact, the child may suffer a hearing loss for a month or more.

3. Complications

If a child with an acute ear infection is left untreated or if the treatment is haphazard (either not long enough or not intensive enough), the infection may seem cured temporarily, but it may linger and reappear. This could cause the breaking down of the mastoid bone, or it could produce more serious infections which might lead to meningitis. Meningitis used to be a dreaded complication of ear infections, but it is relatively rare these days. Occasionally an ear infection results in chronic discharge or "runny ear" caused when the eardrum has broken. A broken eardrum is very dangerous. It is also very difficult to correct and requires treatment by a doctor.

4. Isolation and Quarantine

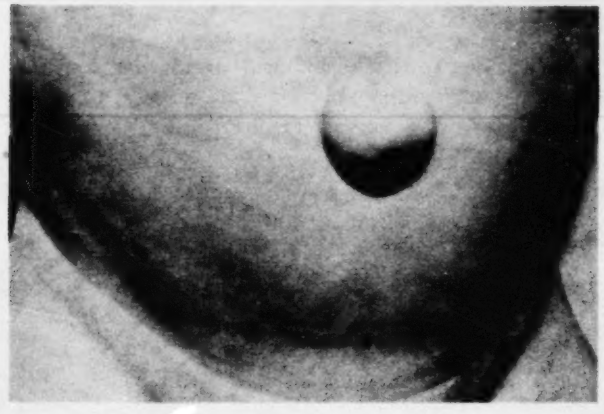
If a child has an ear infection, he or she need not be isolated. However, a child with a runny ear should not be allowed in a day care setting.



VII ABDOMEN, INTESTINAL AND URINARY TRACT PROBLEMS

A. UMBILICAL HERNIA

Occasionally, after a newborn's umbilical cord has fallen off, the umbilical area may protrude, due to failure of the abdominal muscles to grow together. This so-called umbilical hernia tends to decrease in size with age. If it remains after age 5, surgical repair may be necessary. Taping of the protruding navel hides the condition and makes people feel that something is being done for it. However, this procedure can cause skin irritation and also slows the body's own corrective process. While the child is in your care, remove the binder.



B. APPENDICITIS

Appendicitis is a condition which can occur at all ages.

1. Symptoms

The first symptom of appendicitis is a pain in the abdomen, usually around the navel. After awhile, the pain settles to the right of the midline and in the lower part of the abdomen. Nausea may be present and vomiting may occur. The abdomen may hurt more when the child coughs, yawns or straightens out his or her legs. Temperature may be low- or high-grade. Appendicitis may be confused with an ordinary stomach ache.

2. Treatment

It is most important that a physician see the child immediately. Only a doctor can tell the difference between a bad stomach ache and a case of appendicitis. Therefore, it is critical to the life of the child that medical assistance be obtained before the appendix has a chance to rupture.

C. PINWORMS

Most children get pinworms at one time or another. Good hygiene is the best way to control pinworms, and thorough handwashing after toileting and before meals is most important.

1. Description

Pinworms live and thrive quite successfully in the digestive tract. Children often carry pinworm eggs to their mouths on unclean fingers. The eggs hatch and the worms grow and attach themselves to the wall of the bowel.

2. Symptoms

The most obvious clue to the presence of pinworms infestation is rectal itching. Sometimes there are no symptoms, and occasionally stomach aches may indicate pinworms.

3. Treatment

Pinworms can be removed with medication. If you suspect that a child has them, tell the parents.

4. Contagion

Pinworms are easily passed from one person to another especially when they share the same bedding or when high levels of cleanliness after toileting are not maintained. Pinworm eggs also settle in the dust on ledges.

5. Complications

Occasionally, appendicitis may arise from pinworm infection.

6. Isolation and Quarantine

Although pinworms are passed from one child to another, there is no need for isolation. Again, cleanliness is most important in preventing their spread.

D. HEPATITIS

Hepatitis means inflammation of the liver. There are several causes of this inflammation, but the one discussed here is the infectious variety caused by viruses.

1. Symptoms

Hepatitis symptoms can be so mild that the disease can go unnoticed. This is especially true in small children who rarely develop jaundice. Jaundice is a yellowing of the skin.

- A mild fever (with a temperature of 100 to 102 degrees) or a high fever (with a temperature of up to 106 degrees) may develop.
- The fever is usually accompanied by a headache, abdominal pain, nausea and vomiting. Occasionally diarrhea occurs. Achiness and listlessness may also occur.
- After a period of up to 14 days, the older child may develop jaundice. The whites of his or her eyes and skin become yellow, the urine becomes dark, and the stools may be pale or chalk-like in color. The jaundice can last for up to six weeks.
- The high-grade fever may remain for four to five days but there may be a low-grade fever for several months.
- A general feeling of fatigue and a lack of appetite may last longer than the jaundice or the fever.
- The average child with hepatitis is ill for four to six weeks.

2. Treatment

A child with infectious hepatitis should not be in a day care center or around other children in a day home. The child should be kept at home or in a hospital where he or she can have a separate room and bath to prevent contamination of others.

3. Incubation Period

The incubation period varies between 15 and 45 days but is usually about 25 days.

4. Complications

Permanent liver injury may result from hepatitis.

5. Prevention

Check with your local public health department for prevention recommendations.

E. URINARY TRACT INFECTION

Infection in the bladder is called cystitis, and that of the kidneys is called nephritis. Acute infection of the urinary tract is particularly common in females. The infection spreads from the urethral opening into the bladder where it causes cystitis. The kidneys may become involved in the infection.

1. Symptoms

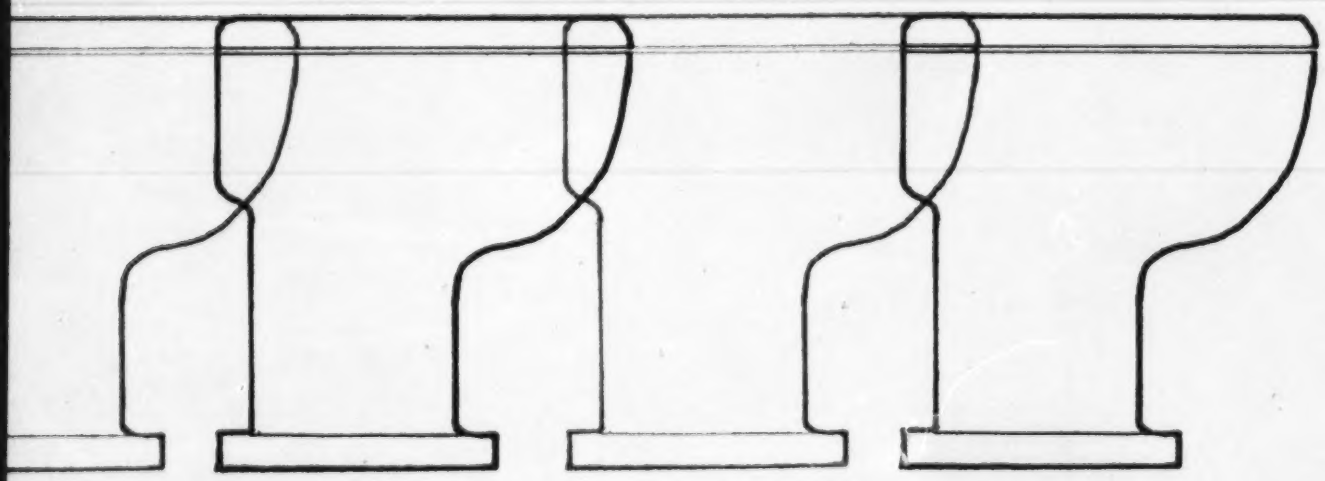
In some cases, infection may not produce symptoms. In others, infection can result in the urgent and frequent need to urinate and a burning sensation upon urinating. Children suffering from urinary tract infections may reveal their pain or discomfort by gripping the genital region.

2. Treatment

Untreated urinary tract infections can become quite serious and should be treated promptly by a physician.

3. Prevention

All females should be taught to wipe from front to back after toileting. This method reduces the chances of bacteria from the anal area reaching the vaginal area. All children should be taught to toilet frequently, not just when they are uncomfortable. Children should drink plenty of liquids as increased amounts of urine help wash away bacteria.



VIII NUTRITIONAL PROBLEMS

A. IRON DEFICIENCY ANEMIA

The most common anemia is iron deficiency anemia which causes a reduction in the number of red cells in the blood. This condition is found frequently in young children and is primarily caused by poor nutrition.

1. Symptoms

. Pallor
. Irritability
. Lack of appetite
. Decrease in normal activity

2. Treatment

The child should be under the care of a physician and receive iron supplements.

3. Prevention

A well-balanced diet is important for people of all ages, and is critical for growing children. An iron fortified formula during the first year of life can prevent anemia in infants; cows milk alone is not sufficient enough in iron to prevent anemia. Children should have a diet containing iron rich foods including red meat (especially liver), spinach and egg yolks.

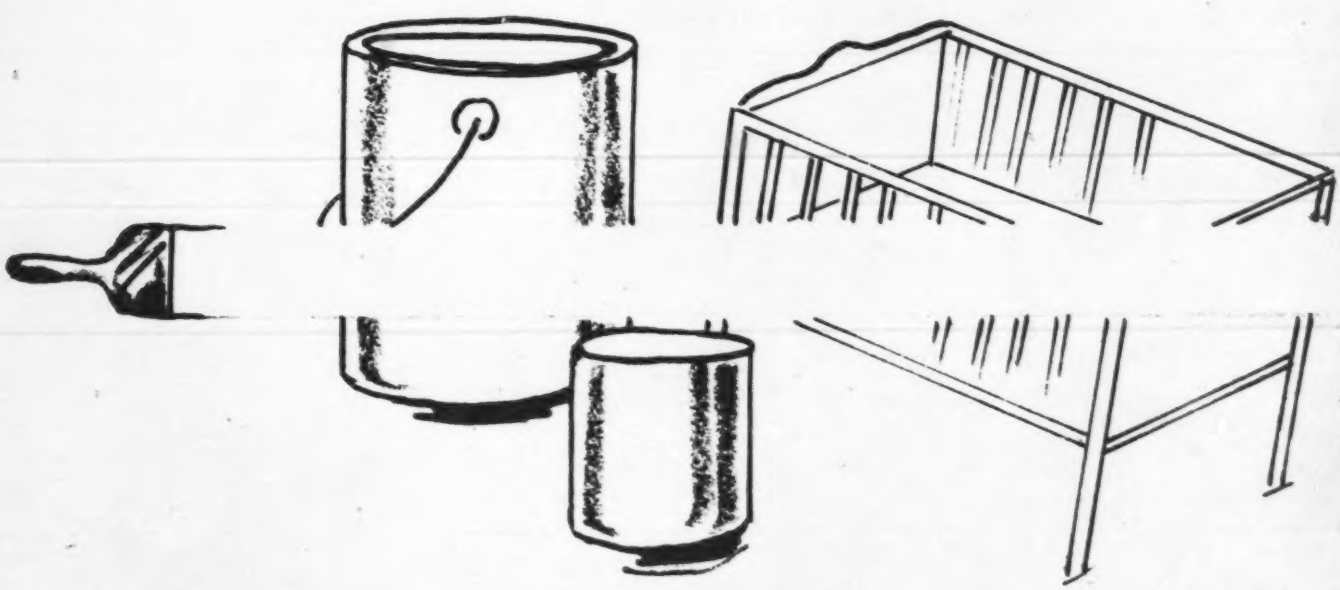
POISON!

LEAD POISONING

Children frequently consume unusual non-food substances which can cause serious illness. Lead poisoning is one of the most dangerous. Children may get lead poisoning by eating paint, dirt, or by drinking water from old lead pipes. Acid foods like tomatoes, when cooked in clay pots, may contain lead.

1. Symptoms

An early symptom of lead poisoning may be a change in the child's behavior. Also, anemia that does not respond to an iron rich diet may indicate lead poisoning.

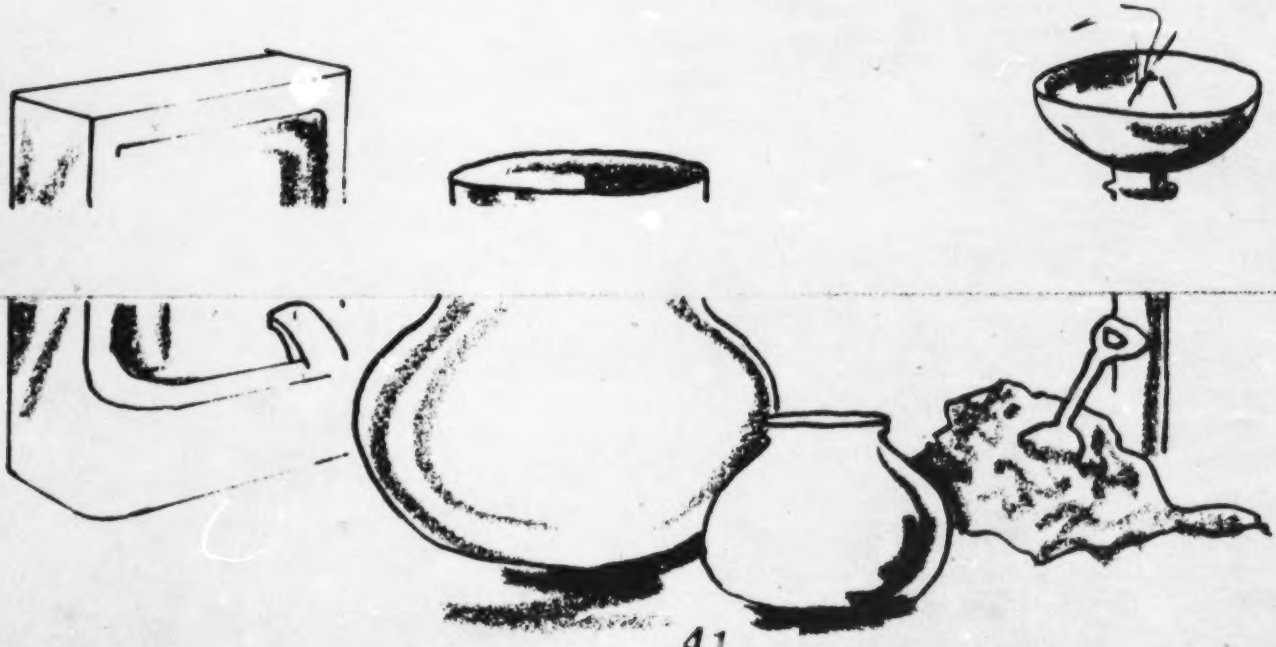


2. Late Symptoms

. Metallic taste	. Vomiting
. Dry throat	. Giddiness
. Intense thirst	. Stupor
. Stomach ache	. Convulsions
. Constipation	. Coma
. Dark Stools	

3. Prevention

The main way to prevent lead poisoning is to keep the child from eating any non-food substance. Even peelings from a wall or an object that has been painted with lead-free paint can be dangerous to a child if the underlying coat of paint contained lead. It is important to keep houses in good repair, but remember that paint with low levels of lead are still being produced and sold and should be avoided.



IX CHRONIC PROBLEMS

Examples of chronic medical problems include: sickle cell anemia, diabetes, epilepsy, and allergies. You should get detailed instructions from the parents regarding the physical limitations of the chronically ill child, and the medications and/or emergency treatment that he or she may require. Chronic illnesses are not infectious.

A. ALLERGIES

An allergy can be defined as an overly sensitive reaction to things which under most conditions would not produce such reactions in non-allergic individuals. The causes of various allergic reactions include foods, drugs, inhalants, animals - almost anything. The reactions can include skin eruptions, respiratory difficulties, gastrointestinal discomfort, and even fatal shock. Asthma, eczema, and hay fever are fairly common examples of allergic reactions.

1. Treatment

a. Get a comprehensive explanation of the child's allergy from the parents. This would include its symptoms, causes, and management.
b. Carefully follow special diet instructions or other routines prescribed by the physician, or directions left by the parents.

2. Breathing Difficulties

Anytime a child has breathing difficulty it is an emergency, and the child should be taken to a hospital. The only exception may be if the child has asthma. An asthmatic attack that is not controlled in 20-30 minutes after following the parents' instructions may need medical attention.

3. Asthma

a. Description
Asthma is a lung condition and is considered to be an allergy. The allergic substance causes the air passages to be narrowed and breathing becomes difficult. Air can be breathed in but breathing out is forced and is accompanied by an asthmatic "wheezing" sound. Breathing is rapid, and the young child, who feels he or she is going to suffocate, may become very frightened.

b. Immediate treatment
- Don't panic. A child seeing anxiety in the caregiver can make the attack worse.
- Allow the child to sit up. Breathing is more difficult in a lying position.
- Follow the detailed emergency instructions left by the parents.
- If this is a first attack, call the child's physician immediately.

c. Long-term considerations
Avoid unnecessary attention or overprotection of the asthmatic child. Anxiety in the caregivers can worsen allergic reactions. Unless their activities are restricted at the request of parents or physician, children with asthma should be allowed to lead as normal a life as possible.

B. DIABETES

Diabetes runs in families. It can be controlled, but it is not curable. The untreated diabetic fails to get the benefit of the food he or she eats. The sugar from ingested food cannot be used by the body and it passes out in the urine. In an adult, the amount of sugar passed may amount to a pound a day.

1. Symptoms

Symptoms of diabetes in the untreated child include: excessive thirst, frequent urination, hunger, fatigue, and weight loss. The condition can lead to coma.

2. Treatment

Children with diabetes can lead normal lives when their condition is medically managed through the use of insulin, proper diet, and adequate exercise. Be sure to follow the instructions left by the parents or the child's physician.

3. Insulin Reaction

A temporary, common problem among diabetics is insulin reaction which is caused by too much insulin and too little sugar in the blood. Symptoms are: confusion, nervousness, drowsiness, weakness and excessive perspiration. Insulin reaction usually can be counteracted by promptly giving the child some candy or orange juice containing sugar.

C. EPILEPSY

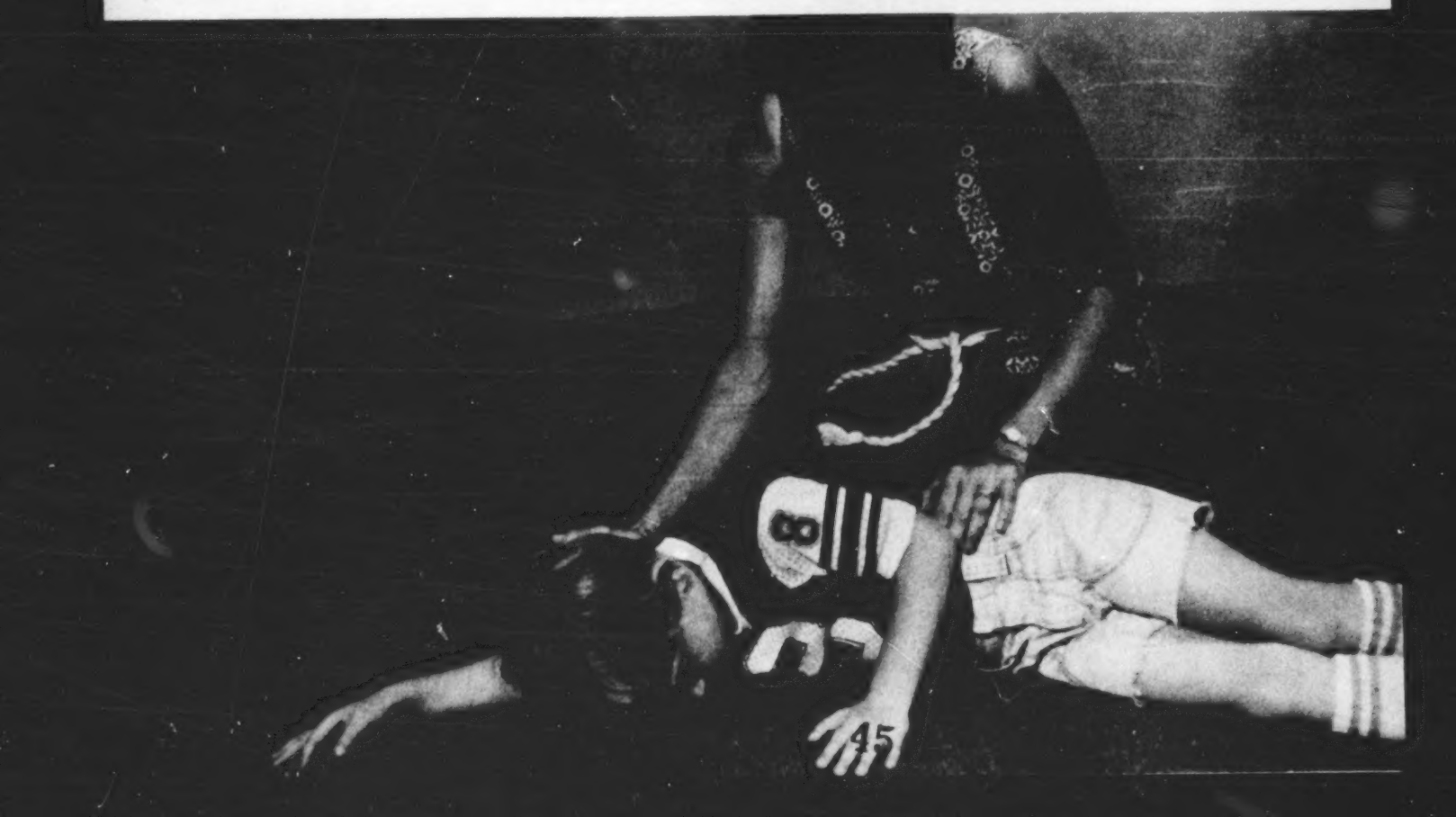
Children with epilepsy, whether minor (petit mal) or major (grand mal) can lead normal lives if the condition is controlled with medication. The caregiver needs to know if a child has epilepsy so that he or she will be prepared in case of a seizure. Seizures seldom, if ever, occur among epileptic children taking medication under a doctor's care.

1. Seizures (minor)

Signs of minor seizures are: A brief fixed stare, fluttering eyelids, and mild facial twitching. It is only a momentary blackout and nothing can be done. Mention it to the parents.

2. Seizures (major)

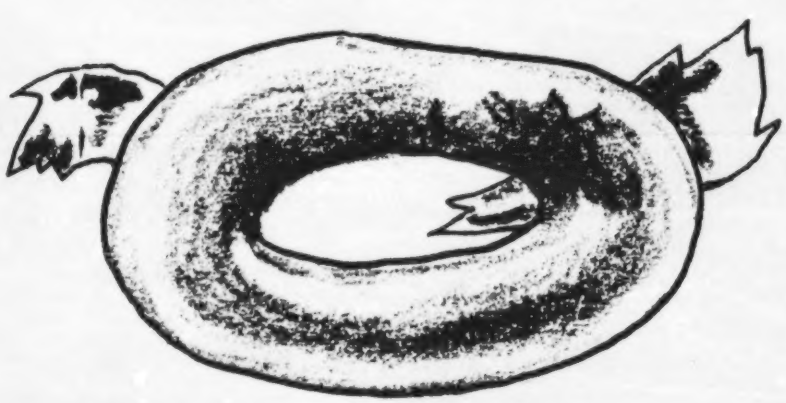
The most violent seizure will rarely last longer than a minute although it may seem longer to the observer. Lower the child to the floor in an area free of hard objects. Loosen collars or belts. Place a folder handkerchief between the back teeth to prevent the child from biting his or her tongue. Turn the child on his or her side to permit saliva to flow from the mouth. After the seizure, the child may wish to sleep for a few hours, or may resume normal activities. Notify the parents.



D. SICKLE CELL ANEMIA

Sickle Cell Anemia is a condition of the blood. The vast majority of people with Sickle Cell Anemia are Blacks. This condition cannot be cured, but it can be treated with modern methods.

1. Symptoms
   The most common symptoms of Sickle Cell Anemia in children are decreased appetite, weakness, fatigue, and pain. The pain is usually in the arms, legs, back, and abdomen. The eyes may also turn yellow.
   a. Infants
      In an infant, the disease may not show itself until after the baby has suffered an infection normally involving the lungs or intestinal tract. The infant may exhibit high temperature, irritability and poor appetite and may also suffer swelling of the hands and feet.
   b. Two- to four-year-olds
      In a child between two and four years of age, swelling of the hands and feet may be the first indication of sickness.
2. Treatment
   The child must be treated by a physician. Be sure to follow the instructions left by the parents of the child's physician.
3. Warning Symptoms
   When the symptoms of the disease become pronounced, the child is said to be having a crisis. He or she should be taken to the doctor for treatment. It is best to call the parents first, but if you cannot get them, phone the physician who has been treating the child.



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TEST YOUR KNOWLEDGE

Take this test both before and after studying this module to see what you have learned. An answer key is on the back.

Read each question and circle all the correct answers. THERE IS MORE THAN ONE CORRECT ANSWER FOR SEVERAL OF THE QUESTIONS.

1. Good hygiene is particularly important in preventing:

   A. Scabies C. Impetigo E. Diaper Rash

   B. Colds D. Thrush F. Pinworms

2. Which of the following medical problems does not always have to be treated by a physician?

   A. Scabies C. Strep Throat E. Iron Deficiency Anemia

   B. Impetigo D. Earache F. Chicken Pox

3. TRUE FALSE Insect or human bites are not as serious as animal bites.

4. Which of the following are the most frequent signs of an allergic reaction to insect bites?

   A. Puffiness of eyes and face C. Vomiting E. Breathing difficulty

   B. Rash and/or welts D. Fever

5. TRUE FALSE Powdering with cornstarch soothes heat rash and diaper rash.

6. Which of the following can be seen inside the mouth?

   A. Eczema C. Impetigo

   B. Scabies D. Thrush

7. TRUE FALSE Allergies can be life threatening.

8. TRUE FALSE Diabetes can be cured if diagnosed early enough.

9. TRUE FALSE Eczema, asthma and hay fever are all allergic reactions.

10. TRUE FALSE The itching of heat rash, diaper rash, and chicken pox can be reduced by bathing a child in lukewarm baking soda solution.

11. TRUE FALSE Tonsils cause most sore throats.

12. TRUE FALSE Babies who drink milk in a lying position may get ear infections.

13. Young children should be immunized against:

A. Chicken Pox
B. Measles
C. Polio
D. Scarlet Fever
E. Rubella
F. Impetigo

14. Which of these medical problems are contagious?

A. Ringworm
B. Scabies
C. Head Lice
D. Eczema
E. Scarlet Fever
F. Strep Throat
G. Chicken Pox
H. Impetigo

15. Serious complications can follow:

A. Tonsilitis
B. Cold Sores
C. Chicken Pox
D. Bronchitis
E. Most common respiratory diseases

ANSWER KEY

1. All	9. True		8. False
2. F	10. True		7. True
3. False	11. False		6. D
4. A, B, E	12. True		5. True
		13. B, C, E	
		14. All but D	
		15. All but B	